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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROGER L. JOHNSTON

Appeal 2009-004993
Application 10/080,982
Technology Center 3600

Before JENNIFER D. BAHR, STEFAN STAICOVICI, and KEN B.
BARRETT, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Roger L. Johnston (Appellant) seeks our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 1-23 (Non-Final Rejection, mailed Apr. 20, 2007). An oral hearing was held on September 14, 2010. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE INVENTION

Appellant's claimed invention pertains to a mobile gantry crane having three booms. Spec. 3, ll. 7-10. Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A triangulated mobile gantry crane, comprising:
 - (A) first, second, and third booms, each of which has a vertical axis and comprises 1) a mobile base that is independently supported on the ground, that is rotatable about the vertical axis to steer the crane and 2) a lift leg that is extendible about the vertical axis, that is supported on said base, and that has an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms, wherein first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;
 - (B) a plurality of horizontal beams that functionally interconnect said lift legs and that are raisable with coordinated lifting of said first, second, and third booms to lift a load from the ground, and wherein at least one of the beams is linearly extendible to increase the horizontal spacing between two of said booms;
 - (C) rigging that extends downwardly from the beams and that is detachably coupleable to the load after the gantry crane is transported to a position in which at least one of the beams is located over the load, the rigging lifting the load from

the ground upon subsequent extension of said booms and that then being releasable from the load upon subsequent retraction of the said booms.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Gonzales	US 3,831,791	Aug. 27, 1974
Rulison	US 4,749,324	Jun. 7, 1988
Brower	US 4,897,011	Jan. 30, 1990
Tana	US 4,973,094	Nov. 27, 1990
Grillet	FR 2,420,502	Oct. 19, 1979
Fedorenko	SU 887,434	Dec. 7, 1981
Varenne	FR 2,597,460	Oct. 23, 1987

The following Examiner's rejections are before us for review:

1. Claims 1-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention;
2. Claims 1-4, 7, 9-11, 17-19, and 21-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales;
3. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Brower;
4. Claims 6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Brower and Tana;

5. Claims 12, 13, 16, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Rulison;

6. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2420502) or Gonzales, and further in view of Brower and Rulison; and

7. Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2420502) or Gonzales, and further in view of Brower, Rulison, and Tana.

OPINION

1. *Claims 1-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention*

Subsumed within the indefiniteness rejection are three different bases. We address each in turn.

A. The Examiner first addressed claims 1, 13, 14, and 16-18, and concluded that the claimed recitation “first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle” is vague and indefinite. Ans. 4. We disagree with the Examiner’s conclusion. One of ordinary skill in the art would understand this quoted language to require that, when the crane is viewed from the top, an acute triangle is formed by three imaginary lines that connect the booms. *See, e.g.,* Reply Br. 21.

B. The Examiner next addressed independent apparatus claims 1-3, 7, 13, 14, 16, and 21. Appellant argues these claims and those that depend therefrom as a group. App. Br. 21, 23. We select claim 1 as the representative claim, and claims 2-16, and 21 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner takes issue with the “rigging” limitation of claim 1, concluding that it is not clear whether Appellant is claiming a method of loading and unloading in combination with the gantry device or merely reciting functional language. Claim 1 recites, in part, “the rigging lifting the load from the ground upon subsequent extension of said booms and that then being releasable from the load upon subsequent retraction of the said booms.” Appellant apparently contends that this is functional language that is appropriate for an apparatus claim, while at the same time seemingly asserting that the limitation requires a particular operation of the device by the performance of method steps – the lifting and lowering of the load via rigging and boom movement. *See Reply Br. 22-23.*

We agree with the Examiner that the above-quoted phrase does not clearly set forth a functional limitation, and therefore renders claim 1 indefinite. Even if one of ordinary skill might be able to make assumptions as to Appellant’s intended meaning, the rejection is appropriate so as to remove unnecessary ambiguity during prosecution. *Ex parte Miyazaki*, 89 USPQ2d 1207, 1212 (BPAI 2008) (during prosecution, the threshold standard of ambiguity for indefiniteness is lower than it might be during litigation of an issued patent). We affirm the rejection of claim 1 and of claims 2-16, and 21 under § 112, second paragraph.

C. The Examiner also rejected claim 20 (which depends from claim 17) as lacking antecedent basis for the term “vehicle.” Non-Final Rej. at 2. Appellant maintains that the Examiner has indicated that an amendment to claim 20 (to replace “vehicle” with “gantry crane”) would overcome the rejection. App. Br. 2. Appellant filed such an amendment concurrently with the Appeal Brief on October 22, 2007, but entry of that amendment was denied. *See Reply Br. 2; Advisory Action, dated June 5, 2008.* Appellant invites us to “consider such an amendment to clarify the interpretation of claim 20.” Reply Br. 2. We review claim 20 as it stands absent the proposed and denied amendment, and affirm the rejection of claim 20 under § 112, second paragraph.

2. *Claims 1-4, 7, 9-11, 17-19, and 21-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales*

Claims 1, 10 and 11

Claim 1 recites a gantry crane comprising: a) three vertical booms arranged in the form of an acute triangle, with each boom having a rotatable base for steering and extendable lift legs; b) a plurality of horizontal beams interconnecting the legs, with at least one of the beams being extendable; and c) rigging that extends from the beams. The beams are raisable with coordinated lifting of the booms to lift a load.

The Examiner found that Fedorenko discloses a triangular mobile gantry crane with three booms, three horizontal beams, and rigging. Non-Final Rej. 3. The Examiner further found that one of the booms is a V-shaped boom, rather than the recited vertical axis boom. *Id.* Fedorenko’s gantry is rail mounted and thus lacks the recited rotatable boom base to steer

the crane. *See Fedorenko*, fig. 2; Non-Final Rej. 3. The Examiner found that Varenne discloses a three-legged powered gantry with vertical-axis telescoping booms mounted on steerable wheels, that the booms are adjustable by lifting jacks, and that the gantry is capable of being oriented at different positions. Non-Final Rej. 3-4; Ans. 9-10. As Appellant acknowledges, Varenne teaches an extendable beam which extends beyond the triangle formed by the legs rather than between two adjacent booms. Reply Br. 37-38; *see Varenne*, fig. 1. The Examiner turns to Grillet and, alternatively, Gonzales for the disclosure that it was known in the art to provide gantries with extendable beams and booms for adjustability. Non-Final Rej. 4. The Examiner maintains that it would have been obvious to modify Fedorenko's gantry's rail mounted legs as taught by Varenne "so that an operator effectively and independently could control the gantry" and to have extendible booms and beams as taught by Grillet and Gonzales "so that the modified gantry would be capable of lifting different sizes of loads at different locations." Non-Final Rej. 4; *see also* Ans. 11-12.

Appellant argues that one would not modify Fedorenko's rail mounted gantry with Varenne's teachings because providing a rail mounted gantry with steerable legs "would be detrimental, if not catastrophic, to operation of the crane assembly." Reply Br. 30; *see also* App. Br. 25. Appellant's argument is not persuasive. The Examiner's proposed combination of teachings results in a moveable, wheeled gantry, not a rail-mounted gantry destined for catastrophic derailment. Contrary to Appellant's position, one of ordinary skill would not fail to recognize that Fedorenko's triangulated beam configuration is applicable to gantries other than those mounted on rails. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) ("A

person of ordinary skill is also a person of ordinary creativity, not an automaton.”) Further, the Examiner responds to Appellant’s argument that Varenne’s steerable wheels are incapable of following the “generally linear orientation” of rails (App. Br. 25) by pointing out that Varenne’s figure 5 depicts the steerable wheels following a straight, rail-like path. *See Ans.* 13. We determine that the Examiner’s conclusion of obviousness is adequately supported by articulated reasoning with rational underpinning. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

We also do not find persuasive Appellant’s argument that the modified Fedorenko gantry will not be suitable for its purpose because the load will be suspended offset from the center of the crane’s footprint or the crane’s center of gravity. *See App. Br. 24*. Even if we were to accept as true the unsupported attorney argument that designers avoid an offset load situation “at all cost” (*id.*), we agree with the Examiner that one of ordinary skill would recognize that the rigging point is not confined to only one beam, and that more rigging or cranes could be used on the other beams as necessary depending upon the size and weight of the load. *See Ans.* 14. Further, we note that Appellant’s embodiment shown in Figure 2 would also have an offset loading configuration if a rigging point R on only one beam were utilized, which appears to be contemplated in the rigging limitation of claim 1 (the rigging is coupleable to the load when “at least one of the beams is located over the load”).

Appellant contends that altering Varenne’s device to include a triangulated beam configuration would “unnecessarily complicate the construction and operation of the machinery transporting and handling device disclosed therein.” App. Br. 25. First, the Examiner’s proposed

combination involves the modification of Fedorenko's triangulated gantry, not Varenne's device. Second, Varenne's powered, articulated, steerable, extendable-legged device is relatively complicated as-is, and we are not persuaded that one of ordinary skill in the art of crane engineering would find a change of beam configuration to be unduly complicated.

Appellant's arguments (App. Br. 27-28) directed to Grillet and Gonzales are not persuasive as they focus on the purported shortcomings of those references' respective individual disclosures rather than the combined teachings of all the references. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) ("Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references."). Appellant is also incorrect to the extent that Appellant contends that the Examiner must incorporate the entirety of a reference's embodiment into the embodiment of the primary reference. *See* App. Br. 28 (arguing that Gonzales' booms are bolted or pinned after extension or retraction thus preventing them from being extendable to lift a load); Reply Br. 33 (asserting that the Examiner's conclusion of obvious is supported by "[o]nly piece-meal consideration of the disclosure[s]"). "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (citations omitted).

Lastly, we disagree with Appellant's assertion that the combined references fail to teach a crane having a plurality of beams "that are raisable with coordinated lifting of said first, second, and third booms to lift a load

from the ground” as recited in claim 1. App. Br. 28. The Examiner’s proposed modification would result in a device having this functionally recited feature. Although claim 1 does not recite any structure for lifting the booms or raising the beams, the Examiner correctly points out that Varenne discloses telescoping legs or booms 12, 14, and 33, with lifting jacks inside. Ans. 11 (citing Varenne, pg. 7-8); *see also* Varenne, figs. 5 and 6 (depicting the legs extended and retracted). Thus, the modified device would be capable of extending the booms to raise the beams in order to raise the load via the rigging.

Appellant has not persuaded us that the Examiner erred in concluding that the subject matter of claim 1 would have been obvious to one of ordinary skill in the art at the time of the invention. We affirm the rejection of claim 1, and of its dependent claims 10 and 11 for which no separate arguments are made.

Claim 2

Independent claim 2 is similar to claim 1, but recites three beams rather than a plurality. Although Appellant argues independent claim 2 under a separate subheading, Appellant does not appear to raise any new arguments not already addressed above in the context of claim 1. *See* App. Br. 29-30; Reply Br. 34-36. As such, we are not persuaded that the Examiner erred in rejecting claim 2, and we sustain that rejection.

Claim 3

Appellant argues that no single reference discloses both a three vertical-axis boom configuration and a triangular beam configuration. App.

Br. 31. Appellant also argues that the cited references have stable square or rectangular footprints (four points of support) and thus teach away from the less stable triangular gantry. *Id.* Appellant is again attacking the references individually, rather than addressing the combined teachings. Varenne teaches a three-point, vertical-axis support, and Fedorenko teaches a triangular beam configuration. Additionally, the mere disclosure of four point supports by some – but, contrary to Appellant’s implication, not all – of the cited references does not constitute a teaching away as Appellant asserts. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)) (Prior art does not teach away from claimed subject matter merely by disclosing a different solution to a similar problem unless the prior art also criticizes, discredits or otherwise discourages the solution claimed.).

Claim 3 recites that the first and second beams are extendible to increase the respective spacing between the booms. Appellant argues that no single reference discloses this feature. App. Br. 32. This argument, however, fails to show error in the Examiner’s rejection based on the *combined* teachings of the references. Cf. Ans. 18-19 (the Examiner responding to Appellant’s argument).

We do not find that Varenne’s disclosure of a gantry that alters boom distance by rotating in the middle teaches away from a device with extensible beams for that purpose. *Contra* App. Br. 32.

We have addressed Appellant’s lift-by-boom-extension argument above. *See* App. Br. 31.

Appellant’s arguments do not persuade us of error in the Examiner’s rejection of claim 3.

Claim 4

Claim 4 depends from claim 3 and recites that first and second beams comprise telescoping tubes. Appellant argues that Grillet and Gonzales only teach a single extendable beam, not two, and that there is no reason to modify Fedorenko's gantry to have more than one extendable beam. App. Br. 33-34; Reply Br. 40-41. We cannot accept Appellant's implied assertion that one of ordinary skill would have failed to see the applicability of the telescoping-beams teaching to more than one beam of Fedorenko's three beam gantry. Appellant admits that the references teach an adjustable beam so that the gantry would be capable of lifting different sizes of loads at different locations. App. Br. 34. One of ordinary skill in the art would have readily recognized that the use of more than one adjustable beam in a three beam gantry would provide beneficial additional adjustability. We are not persuaded of error in the Examiner's conclusion that the subject matter of claim 4 would have been obvious to one of ordinary skill in the art.

Claim 7

Appellant's arguments as to claim 7 have been addressed above and found to be unpersuasive. *Contra* App. Br. 38 ("As argued above with respect to claims 1-3"); *id.* ("As argued above with respect to claim 3"); *id.* at 39 ("As argued [above] with respect to claims 1, 2, and 3") Accordingly, Appellant has also not persuaded us that the Examiner's rejection of claim 7 is in error.

Claim 9

Claim 9 calls for the first and second beams to have multiple mounting points for receiving the ends of the third beam. The Examiner found that the slots in Grillet's beam and the apertures in Gonzales' beam can be considered to be mounting points. Non-Final Rej. 4; *see* Grillet, fig. 2; Gonzales, fig. 1. However, those slots and apertures appear (particularly with respect to Gonzales) to be holes for the hardware that locks the respective beam's length. We cannot find that one of ordinary skill in the art would consider those holes to be mounting points for another beam. As such, we are constrained to reverse the rejection of claim 9.

Claims 17 and 22

Claim 17 recites a method of using a mobile triangulated gantry crane. Appellant impliedly argues that the Examiner made an erroneous finding because Fedorenko's crane lacks booms each having an independently mobile base. App. Br. 46 (quoting Non-final Rej. 5). However, the Examiner's finding, as quoted by Appellant, clearly refers to the *modified* Fedorenko gantry, not the single reference in isolation. That modified structure would have mobile bases on the booms.

Appellant also alleges error in the Examiner's conclusion that it would have been obvious to persons of ordinary skill in the art to lower a load by retracting the booms of Grillet. App. Br. 47 (citing Non-final Rej. 5). Specifically, Appellant contends that one of ordinary skill would not appreciate that the bolts or pins in Grillet's boom could be removed so as to lower the beam with a load supported on the beam. *Id.* Appellant is again incorrectly focusing on a single reference rather than the Examiner's

proposed combination and, apparently, presuming that the modified crane would have bolted booms. We see no error in the Examiner's conclusion that it would have been obvious to raise and lower a load by extending or retracting the booms.

We affirm the rejection of claim 17, and of its dependent claim 22 for which no separate arguments are made.

Claim 18, 19 and 23

Claim 18 recites a method of using a mobile triangular crane, but Appellant's arguments for patentability primarily pertain to the structure of the crane itself. App. Br. 47-49.

Appellant argues that the Examiner's proposed modification of Fedorenko's gantry "would yield an assembly wherein the center of gravity of a load is positioned outside the points of support of the crane relative to the orientation of the lift legs." App. Br. 48. This argument appears to be a reiteration of the unpersuasive "off-center loading" argument made earlier in the context of apparatus claim 1. We have addressed this argument above in the context of claim 1, and find it equally unpersuasive in the context of method claim 18. Further, claim 18 recites "coupling at least one of first, second, and third horizontal beams to said load" thus encompassing coupling the load to only one beam, which is a configuration depicted in Fedorenko's figure 2 (with the center of gravity of the load under the beam, and which therefore would be in line with, not outside of, the points of support in the modified gantry).

Claim 18 calls for, in step (D), extending the beam at the front end of the gantry (the third beam) so as to increase the spacing between two booms

to permit the rear end of the gantry to straddle the load. Appellant argues that there is no disclosure in the art or record of extending a third beam for this purpose. App. Br. 48. Specifically, Appellant contends that no single reference discloses “a three-point supported crane” with the load positioned within the footprint of the supports. *Id.* Thus, Appellant is once again unpersuasively focusing on each of the references in isolation rather than the crane resulting from the Examiner’s proposed combination of the references’ teachings. Similarly, we do not find persuasive Appellant’s argument (apparently also premised on the evaluation of each reference separately) that none of the references disclose a need or desire to open the footprint by extending the third beam prior to moving the crane over the load. *Contra* App. Br. 48-49. Where the boom spacing is inadequate to permit the gantry to straddle the load, one would readily see the need to open the modified Fedorenko gantry footprint by expanding the particular beam that is to pass over the load. Thus the problem suggests the solution.

We are not persuaded that the Examiner erred in concluding the subject of claim 18 would have been obvious to one having ordinary skill in the art. We affirm the rejection of claim 18, and of its dependent claims 19 and 23 for which no separate arguments are made.

Claim 21

As to independent apparatus claim 21, Appellant relies on and, to a limited extent, reiterates the arguments made for claims 1, 2, and 3. *See* App. Br. 49-50. Those arguments do not persuade us of error. For the reasons discussed above, we determine that the Examiner’s conclusion of obviousness is adequately supported by articulated reasoning, and is not

based on impermissible hindsight as Appellant asserts. *Contra* App. Br. 50. Accordingly, we sustain the rejection of claim 21.

3. *Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Brower*

Dependent claim 5 further defines the telescoping tube of the first and second beams as comprising an inner tube located generally centrally to the beam and two outer tubes, each extending from the inner tube to a lift leg, with the outer tubes extendable/retractable relative to the inner tube. The Examiner found that Brower discloses a beam 16 having two tubes sliding over an inner tube and maintains that it would have been obvious to further modify the Fedorenko beams according to this teaching so as “to provide more flexibility to adjust the spacing between booms.” Non-Final Rej. 6; *see also* Ans. 21-24 (the Examiner responded to Appellant’s arguments by further elaborating as to why one of ordinary skill in the art would modify the references).

Appellant argues that “the Examiner has merely asserted a conclusion as to the desirability of that which is called for in the claims.” App. Br. 35; *see also* Reply Br. 43 (apparently asserting that the Examiner’s description of the prior art lacks a reasonable basis to alter the construction of the prior art devices). This argument does not explain why the rejection is in error as the desirability of a modification can support the conclusion of obviousness. *See KSR Int’l Co.*, 550 U.S. at 417 (“When a work is available in one field of endeavor, design incentives … can prompt variations of it … [and,] [if] a person of ordinary skill can implement a predictable variation, § 103 likely

bars its patentability.”) The Examiner has supported the conclusion of obviousness with rational underpinning.

Appellant’s arguments (App. Br. 35-36) regarding the purported shortcomings of Brower’s device are not persuasive. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (“Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.”)

4. *Claims 6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887,434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Brower and Tana*

Claim 6 recites a pair of cylinders operable to extend and retract the two extendible beams of claim 5. For this feature, the Examiner points to Tana’s boat hoist having cylinders to extend/retract beams. Ans. 6; see Tana, fig. 2.

We are not persuaded by Appellant’s argument that, because Tana is directed to a boat hoist for use with a crane and not a gantry crane, Tana is unrelated to the claimed invention. App. Br. 37. Tana pertains to lifting apparatuses generally, and one of ordinary skill in the art would recognize the applicability of Tana’s teachings to gantry beams.

Appellant contends that there is no disclosure of an outboard outer beam “that is independently extendable and retractable and [sic, as] required by claim 5 [from which claim 6 depends].” App. Br. 37. The language of claim 5 does not recite “independently” extendable/retractable beams and it is unclear as to which limitation of claim 5 is allegedly missing from the references.

Appellant's remaining arguments regarding claim 6 (App. Br. 36-38) do not persuade us of error as those arguments appear to address the purported shortcomings of Tana in isolation rather than the Examiner's proposed combination of all the references' teachings, or are premised on the erroneous belief that the structure of Tana must be bodily incorporated into the Fedorenko gantry.

Appellant has not pointed to an error in the Examiner's rejection of claim 6 as unpatentable over Fedorenko, Varenne, and either Grillet or Gonzales, and further in view of Brower and Tana. We sustain that rejection. Appellant does not offer separate arguments for claim 8, and thus we also sustain the rejection of that claim.

5. *Claims 12, 13, 16, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2,420,502) or Gonzales, and further in view of Rulison*

Claim 13

Appellant maintains that "it [is] disingenuous to assert that a person of ordinary skill in the art would consider a carpet hoist as disclosed by Gonzale[s] or a construction material positioning apparatus as disclosed by Rulison to be material and relevant to gantry crane construction." App. Br. 41. Appellant suggests that the Examiner is engaging in impermissible hindsight by relying on purportedly "isolated disclosures." *Id.* at 41-42.

The references relied upon by the Examiner are all directed to gantries or to other lifting devices. We find these references to be analogous art and, contrary to Appellant's assertion, find that the references' teachings would have been considered by one of ordinary skill in the art. *See In re Kahn*, 441

F.3d 977, 986-87 (Fed. Cir. 2006) (citation omitted) (A reference is considered to be in an analogous art where it “is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned[.]”) Further, we determine that the Examiner did not rely on impermissible hindsight, as Appellant suggests, but rather relied on the knowledge of those skilled in the art at the time of the invention.

We have addressed Appellant’s remaining arguments above, and found them to be unpersuasive. We sustain the rejection of claim 13.

Claim 16

Appellant refers to the arguments directed to claims 13 and 14. App. Br. 45. We address those arguments elsewhere in this decision, and find them unpersuasive.² *See supra* (discussing claim 13); *infra* (claim 14).

Appellant argues that “there is no disclosure or suggestion in the references of record to provide a hydraulic cylinder that extends between a pair of horizontal beams and is connectable to each of a pair of beams at multiple discrete locations.” App. Br. 45. Appellant also argues that the Examiner has failed to provide support for the position that it would have been obvious to those skilled in the art to provide a pair of cylinders on the beams of Fedorenko’s gantry to conveniently extend or retract the beams. *Id.* (quoting Non-Final Rej. 7). We disagree with Appellant. While the

² Appellant, in the Appeal and Reply briefs, addresses the rejected claims in numerical order rather than by rejection. Thus, claim 14, which is the subject of the sixth rejection, was argued before claim 16, which is the subject of the fifth rejection.

Examiner does not find that any single reference cited in the rejection discloses a hydraulic cylinder for extending a beam, the Examiner correctly finds that Varenne teaches a lifting jack 13 for telescoping a boom. *See Ans.* 9 (discussing Varenne in the context of the rejection of claim 1); *id.* at 27 (incorporating, into the rejection of claim 16, the discussion of the references as applied to claim 1). Lifting jack 13 is hydraulic. *Varenne* 7-8. The Examiner relies on either Grillet or Gonzales for the teaching of an extendable boom. *Ans.* 14-18. Further, we note that the Tana reference, although not relied upon by the Examiner in this rejection, demonstrates that the use of hydraulic cylinders for extending and retracting beams was known in the art. *See Tana, fig. 2;* *Ans.* 25-26 (discussing Tana's teachings). Given the level of skill and knowledge in the art, we do not discern error in the Examiner's conclusion that it would have been obvious to provide hydraulic cylinders on Fedorenko's beams.

Additionally, we find that the Examiner's proposed modification results in a device having the recited "rear cross beam ... operatively connectable to each of said first and second lift beams at multiple discrete mounting locations." This language functionally defines the rear cross beam, and merely requires a beam capable of being connected to the other two beams at multiple locations. Appellant appears to assert, correctly, that Fedorenko's three beams connect to each other only at their ends. *See App. Br. 45.* However, Appellant does not argue, and we decline to find, that Fedorenko's beams lack the capability of being connected elsewhere.

We affirm the rejection of claim 16.

Claims 12 and 20

Appellant does not provide arguments for claims 12 or 20, which depend from claims 1 and 17, respectively. As we affirm the rejection of those parent claims, we also affirm the rejections of claims 12 and 20.

6. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2420502) or Gonzales, and further in view of Brower and Rulison

Appellant reiterates the unpersuasive arguments previously made for claims 1, 2, 3, and 5. *See* App. Br. 43, 44. We have addressed those arguments above.

Appellant also argues that Brower discloses inner and outer tubes that are pinned or bolted, and therefore Brower fails to disclose extendable and retractable beams as recited in claim 14. App. Br. 44. This argument is not persuasive as it focuses on one reference rather than the references' combined teachings and appears to be based on the erroneous assumption that the embodiment of Brower must be bodily incorporated into the modified Fedorenko gantry. *See In re Merck & Co.*, 800 F.2d at 1097; *In re Keller*, 642 F.2d at 425.

We are not persuaded that the Examiner erred in concluding that the subject matter of claim 14 would have been obvious in light of Fedorenko, Varenne, and either Grillet or Gonzales, and further in view of Brower and Rulison.

7. *Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fedorenko (SU 887434), Varenne (FR 2,597,460), and either Grillet (FR 2420502) or Gonzales, and further in view of Brower, Rulison, and Tana*

Claim 15 depends from claim 14, the rejection of which we affirm for the reasons discussed above. Appellant does not offer separate arguments for claim 15. Accordingly, we also affirm the rejection of claim 15.

CONCLUSIONS

We affirm the rejection of claims 1-16, 20, and 21 under § 112, second paragraph. We reverse the rejection of the remaining claims subject to that rejection, claims 17-19, 22, and 23.

We affirm the rejections of claims 1-8 and 10-23 under § 103 as being unpatentable over the respective references upon which each ground of rejection is based.

We reverse the rejection of claim 9 under § 103 as being unpatentable over Fedorenko, Varenne, and either Grillet or Gonzales.

DECISION

The decision of the Examiner to reject claims 1-23 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

Appeal 2009-004993
Application 10/080,982

mls

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